

PATENT

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ABSTRACT OF THE DISCLOSURE

A method for depositing a cap layer over a metal-containing interconnect is provided. In one aspect, the cap layer is formed by introducing a pulse of a metal-containing compound followed by a pulse of a nitrogen-containing compound. In one aspect, the cap layer comprises tantalum nitride. The cap layer provides good barrier and adhesive properties, thereby enhancing the electrical performance and reliability of the interconnect.

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